CLAIMS

1. An etalon comprising:

a first rutile material having a first coefficient of thermal optical path length change β_1;

a second material having a second coefficient of thermal optical path length change β_2;

an optical path extending through said first material and said second material, wherein one of β_1 and β_2 is negative.

2. The etalon as claimed in claim 1, wherein said second material includes an optical glass.

3. The etalon as claimed in claim 1, wherein said second material includes BK7.

4. The etalon as claimed in claim 1, wherein said second material includes a crystal.

5. The etalon as claimed in claim 1, wherein said second material includes a quartz.

6. The etalon as claimed in claim 1, wherein said etalon further includes an anti-reflective coating between said first rutile material and said second material.

7. An etalon comprising:

a first material having a first thickness d_1, a first index of refraction n_1, and a first coefficient of thermal optical path length change β_1, wherein $\beta_1 < -1.0$;

a second material having a second thickness d_2, a second index of refraction n_2, and a second coefficient of thermal optical path length change β_2, wherein the ratio d_1/d_2 equals $-(n_2\beta_2)/(n_1\beta_1)$.

8. The etalon as claimed in claim 7, wherein $-7 > \beta_1 > -25$.

9. The etalon as claimed in claim 7, wherein said etalon includes BK7.

10. The etalon as claimed in claim 7, wherein said etalon includes quartz.

11. The etalon as claimed in claim 7, wherein said etalon includes silicon.

12. An etalon including strontium titanate.

13. An etalon including a rutile material and a coefficient of optical path length that is approximately zero.

14. An etalon including a strontium titanate material having a negative β, a positive β material, and a coefficient of optical path length that is approximately zero.

15. An etalon comprising:

a rutile material having a first thickness d_1, a first index of refraction n_1, and a first coefficient of thermal optical path length change β_1;

a glass material having a second thickness d_2, a second index of refraction n_2, and a second coefficient of thermal optical path length change β_2, wherein the ratio d_1/d_2 equals - $(n_2\beta_2)/(n_1\beta_1)$.